



Town of Middlefield Communications Committee

Report on visit to Leverett June 11, 2015

Committee members attending:

Howard Knickerbocker
Steve Harris

Others attending:

Members of Leverett Broadband Committee
Several visitors from other towns

Notes:

Members of the Leverett Broadband Committee were extremely generous with their time – devoting the first hour and one-half of their meeting to filling us in on their experiences and the lessons they have learned. They provided us with a public access link to their Dropbox repository, and offered to supply any additional information we were unable to find there.

The eight member committee is a hard-working, dedicated group of individuals with diverse backgrounds from legal to technical, who have been meeting weekly for the last four years.

Highlights of the lessons they conveyed:

- The Committee reports that they had received a \$40,000 planning grant from MBI and have had a good working relationship with MBI over the course of the project.
- **They had decided at the start not to participate in the WiredWest project.** They did not want to co-mingle their property and risk losing it, and WW would take too long to implement. Leverett took 4+ years.
- **It is absolutely vital for towns to own their infrastructure** built with taxpayer monies, and not turn them over to a regional organization.
- They decided that they would need overwhelming town support to pursue the project, which they received at the April 2012 Town Meeting and the June 2012 debt exclusion override vote.
- While the Leverett Municipal Lighting Plant does not come under the same transparency constraints as a municipality, they nevertheless determined that it was in their best interests to follow similar procedures.

- They determined that it was vital to separate network backhaul and infrastructure maintenance – provided by Holyoke Gas & Electric – from ISP services, and this would enable flexibility in ISP selection and provide dual sources of usage information.
- Three service providers submitted bids on the project – OTT Communications in Maine, Slic Network Solutions in NY, and Crocker Communications here in Western MA. The Committee determined that Crocker offered the best hands-on presence to meet their needs.
- Crocker has worked tirelessly to promote the Leverett fiber project. They will also do internal home wiring for a fee.
- Leverett does not have an “open” network in which any ISP can participate – rather, it was determined that a single ISP chosen by the Municipal Lighting Plant gives everyone using can best be assured of receiving quality service.
- After conducting extensive research on “cable TV” services, they determined four years ago that it was not financially feasible, as they anticipated the rapid expansion of programming over the internet. All of the more popular program bundles like Netflix, and Hulu will be available on Leverettnet at the same monthly rate presently charged by cable and satellite companies with the further benefit of not requiring annual contracts. Thousands of additional “channels” can be found on the internet and there are several devices now available that will help organize these for the viewer “on screen”.
- It was determined that it would be most economical to install Optical Network Terminals on the outside of every home during initial construction since they anticipated a high take rate and it would encourage customers to sign up.
- They currently obtain 1 Gbps of backhaul from Holyoke Gas & Electric. Should they need to purchase additional bandwidth, they will consider adopting a tiered pricing system based on usage. (The potential backhaul capability is 10 Gbps with the present Axia installed switch.)
- They found that there is little in the way of economies of scale (e.g. by combining multiple towns) in terms of construction or the provision of services.
- As MBI is now geared up to do the infrastructure grunt work Leverett would gladly turn those tasks over to MBI if they were starting out today.
- The uniqueness of Leverett was stressed in terms of proximity to colleges, the lack of summer residents, etc. Other towns might consider hybrid solutions, with the caution that we should avoid creating the perception of a two-tiered service.
- Again and again they warned us not to go with the WiredWest regional network since:
 - We would be exposed to open-ended construction and operational liabilities.

- The WiredWest business model appeared to make no sense and there was no way that they could generate adequate revenues via their advertised rates.
- They have no experience in maintaining a network and providing services, and have no idea how complex and costly the task can be.
- It is vital not to be tied to a particular network operator or ISP, but to have the ability to choose whoever can best serve the interests of the town.

Follow-up questions and concerns:

- Leverett has access to real bonding markets for long term funding and most everyone else is tied to local bank sources. How does that affect the thinking? Can the State be the lender for this project?
- Leverett took the approach that the fiber is a public utility, electing to hook up every house at any distance as part of this approach. Their attitude seems to be we are rich and can afford anything – like the 2 POPs with full generator backups and large cost of maintaining batteries at every house due to the VOIP obligation. (VOIP probably precludes a mixed technology system.)
- They probably included VOIP in the mix because Crocker is in the phone business. What happens to VOIP if another ISP is selected?
- If all 600 homes were downloading at the same time each would have 1.67 Mbps of bandwidth available. Can you say slow DSL speed? You hope IP Video does not become too popular. This is the great lie associated with providing "unlimited" up/download capability. What happens if someone runs their own porno server farm from their home? Fat pipes are not that fat. If only 40 homes were downloading 2 HD feeds (25 Mbps total), the network capability would be fully utilized. How much would a second Gbps add to the monthly bill?
- If Crocker bows out, Leverett has no credible local ISP to handle everything. Costs will skyrocket.
- The big question is: "How WW can project a large surplus by charging less than the Leverett stripped down model?"